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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20054

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JAN 30 2003

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
	)	
Amendment of Section 73.622(b)	)	**RM-**
Digital Television Table of Allotments,	)	
(Santa Ana, California)	)	

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To: Chief, Media Bureau

PETITION FOR RULEMAKING

Trinity Christian Center of Santa Ana, Inc., licensee of television broadcast station KTBN, Santa Ana, California ("Petitioner" or "Trinity"), by its attorney and pursuant to Sections 1.419, 1.420 and 73.623 of the Commission's Rules, hereby requests that the Table of Allotments for Digital Television ("DTV") Stations, Section 73.622(b) of the Commission's Rules, be amended as follows:

	Channel No.	
City	**Present**	**Proposed**
Santa Ana, California	**23c**	**45**

In support of such request, the following is set forth.

1. Petitioner seeks to substitute DTV Channel 45 in lieu of DTV Channel 23 at Santa Ana, California, for use by Station KTBN at the same transmitter site authorized for use by KTBN for its NTSC operation on Channel 40. DTV Channel 23 was allocated for use by KTBN pursuant to the Sixth Report and Order in MM Docket No. 87-268, 12 F.C.C. Rcd. 14588 (1997), recon.

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granted in part, 13 F.C.C. Rcd. 7418 (1998).[1]

2. **As** set forth in the attached engineering of Kevin T. Fisher, Smith and Fisher, the proposed DTV channel substitution is fully consistent with the requirements of Section 73.623(c) and 76.625(a) of the Rules. Specifically, the substitution of DTV Channel 45 at Santa Ana would comply with the principal community coverage requirements and will not result in more than a two percent (2%) increase in new interference to the population served by any other DTV stations, DTV allotment or analog television broadcast station or result in any affected station receiving interference in excess of ten percent (10%) of its population (see Exhibit H-1, Interference Study, and Exhibit H-2, ***De** Minimis* Interference Analysis, of attached engineering).

3. The proposed substitution would benefit the public interest for the following reasons. If the Petition for Rulemaking is adopted, Petitioner intends to operate DTV Channel 45 during the transition period with facilities which will provide service to a primary (41 dBu) population of 15,746,450 (Exhibit G-1, attached). Absent a change in DTV allocation from Channel 23 to Channel 45, Petitioner will not, during the DTV transition period, engage in full power DTV operations, but, rather, will operate at low power, providing DTV service to far fewer viewers. Moreover, the Langley-Rice interference-free service on channel 45 would be 14,537,407, compared to only 13,429,034 on channel 23. Thus, the proposed substitution of Channel 45 would result in an increase in interim and post-transition DTV interference-free service to over 1,108,00 additional persons?

'Trinity has a pending construction permit application for its channel 23 allocation (BPCDT - 19991101AHZ).

[2]Even without reference to a Langley-Rice interference free comparison, the attached engineering establishes that the 41 dBu service on channel 23 would serve 190,056 fewer

4. The proposed change also will enable KTBN to avoid the extra cost of purchasing a transmitter and other equipment which it will not use at the end of the DTV transition period. As reflected by the attached engineering, Trinity would propose to operate on DTV Channel 45 after the transition period and, therefore, will be able to use the antenna, transmission line and transmitter employed during the transition period. If Petitioner's proposal to substitute Channel 45 in lieu of Channel 23 is adopted by the Commission, the resulting capital cost savings will make available additional resources for Trinity to invest in promoting and providing DTV and public interest programming to the public.

5. The success of a DTV station operation is inherently related to viewer acceptance; the larger the audience size, the greater likelihood that viewers will purchase DTV receivers and, further, purchase receivers at an earlier point in time. The compelling public interest benefit herein is that more than 1,108,00 additional persons will be served by a DTV Channel 45 operation at the commencement of KTBN's DTV operation, and significantly prior to the December 31,2006 end of the transition period. Accordingly, a Channel 45 DTV allocation would better serve to expedite the public's acceptance and conversion to digital television.

6. The proposed substitution of DTV Channel 45 for DTV Channel 23 would permit station KTBN to replicate a substantially larger portion of its existing service area on analog Channel 40, from its current antenna site, during the DTV transition period and thereafter; and the proposed channel change complies with the coverage and allocation criteria set forth in the

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viewers than would service on channel 45. The 41 dBu DTV service on channel 23 would be only 15,556,394, compared with 15,746,450 on Channel 45. ***See,*** Exhibit G-1 of attached engineering and the original engineering submitted by Petitioner in a May 1,2000 rulemaking petition, subsequently dismissed, seeking the assignment of channel 16 for channel 23 in Santa Ana.

Commission's Rules.[3] Accordingly, Trinity respectfully submits that its proposed DTV channel substitution would greatly serve the public interest.

7. Accordingly, based on the foregoing, the Commission is respectfully requested to issue a Notice of Proposed Rulemaking to change the DTV allocation for Santa Ana, California from channel 23 to channel 45.

Respectfully submitted,

TRINITY CHRISTIAN CENTER OF SANTA ANA, INC.

By:

Colby M. May

Its Attorney

January 30,2003

Law Offices of Colby M. May, Esq., P.C.
205 3rd Street, S.E.
Washington, D.C. 20003
(202)544-5171
(202)544-5172 fax
cmmayaclj@aol.com
cmmay@aclj-dc.org

[3]Given the allotment of channel 45 in Tijuana, Mexico, Mexican approval will be required, but there is no technical reason that approval should be withheld.

SMITH & FISHER ENGINEERING STATEMENT
AND ASSOCIATED EXHIBITS
SUPPORTING PROPOSED RULEMAKING TO SUBSTITUTE
DTV CHANNEL 45 FOR DTV CHANNEL 23c at
SANTA ANA, CALIFORNIA

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of Television Station KTBN-TV, Santa Ana, California, in support of its Petition for Rulemaking to substitute Channel 45 for the KTBN-DT allotment on Channel 23.

Due to significant interference concerns on DTV Channel 23 with respect to KVCR-TV (Channel 24 in San Bemardino, California) and KADY-DT (Channel 24 in Oxnard, California), KTBN-DT cannot be properly maximized on its present channel. However, a detailed channel search and interference study reveals that DTV Channel 45 can be allotted to Santa Ana from the KTBN-TV site and with specific, maximized operating parameters.

The proposed site, at 34° 1 3 27", 118"03' 44", is plotted in Exhibit B. For the purposes of our interference studies, we assumed that an Andrew ATW22HS4-HSC4-45S directional antenna would be side-mounted on the present KTBN-TV tower, as shown in Exhibit C. The proposed effective antenna height is 1765 meters AMSL. and the main-lobe ERP is 1000 kw. Proposed operating parameters are listed in Exhibit D, and Exhibit E provides the antenna radiation pattern data for the proposed antenna. Exhibit F is a tabulation of terrain and contour data for the proposed facility.

The predicted service contours are plotted in Exhibit G-1. As shown, the community of Santa Ana is entirely contained within the requisite 48 dbμ contour. Exhibit G-2 is a map upon which the proposed 41 dbμ contour of KTLA-DT, as authorized in BPCDT-20000425AAV, is plotted in relation to that proposed herein. KTLA-DT is allotted on

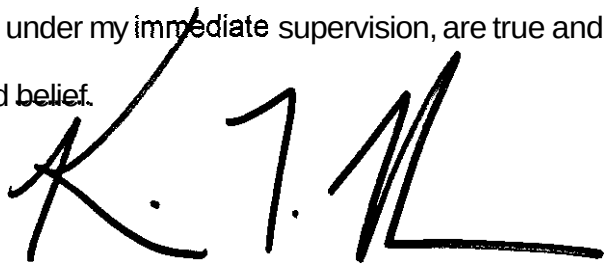
Channel 31 in Los Angeles, part of the same DMA as KTBN-DT. Clearly, the KTLA-DT service area is greater than that of KTBN-DT, as proposed. As a result, this proposal does not specify a facility that exceeds the coverage of the largest D N station in the DMA.

Exhibit H is an interference study, which concludes that the proposed facility meets the requirements of §73.623(c)(2) of the Rules with respect to both NTSC and DTV facilities.

Therefore, it is respectfully requested that the FCC substitute DTV Channel 45 for DTV Channel 23 in Santa Ana, California, in its Digital Television Table of Allotments in §73.622(b) of the Rules as follows:

Community	Present Allotments	Proposed Allotments
Santa Ana, California	**23c**	**45**

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KEVIN T. FISHER

January 23,2003

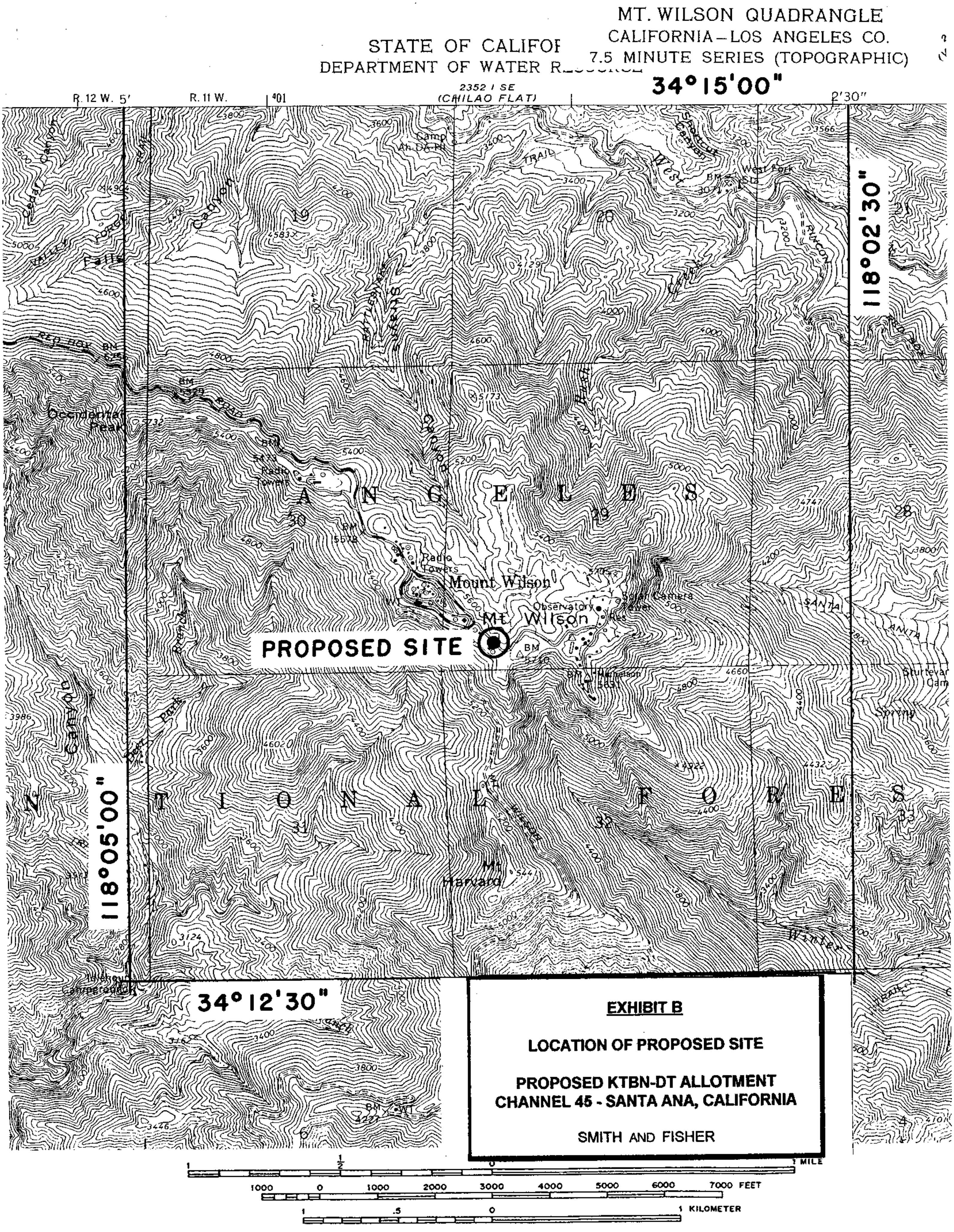


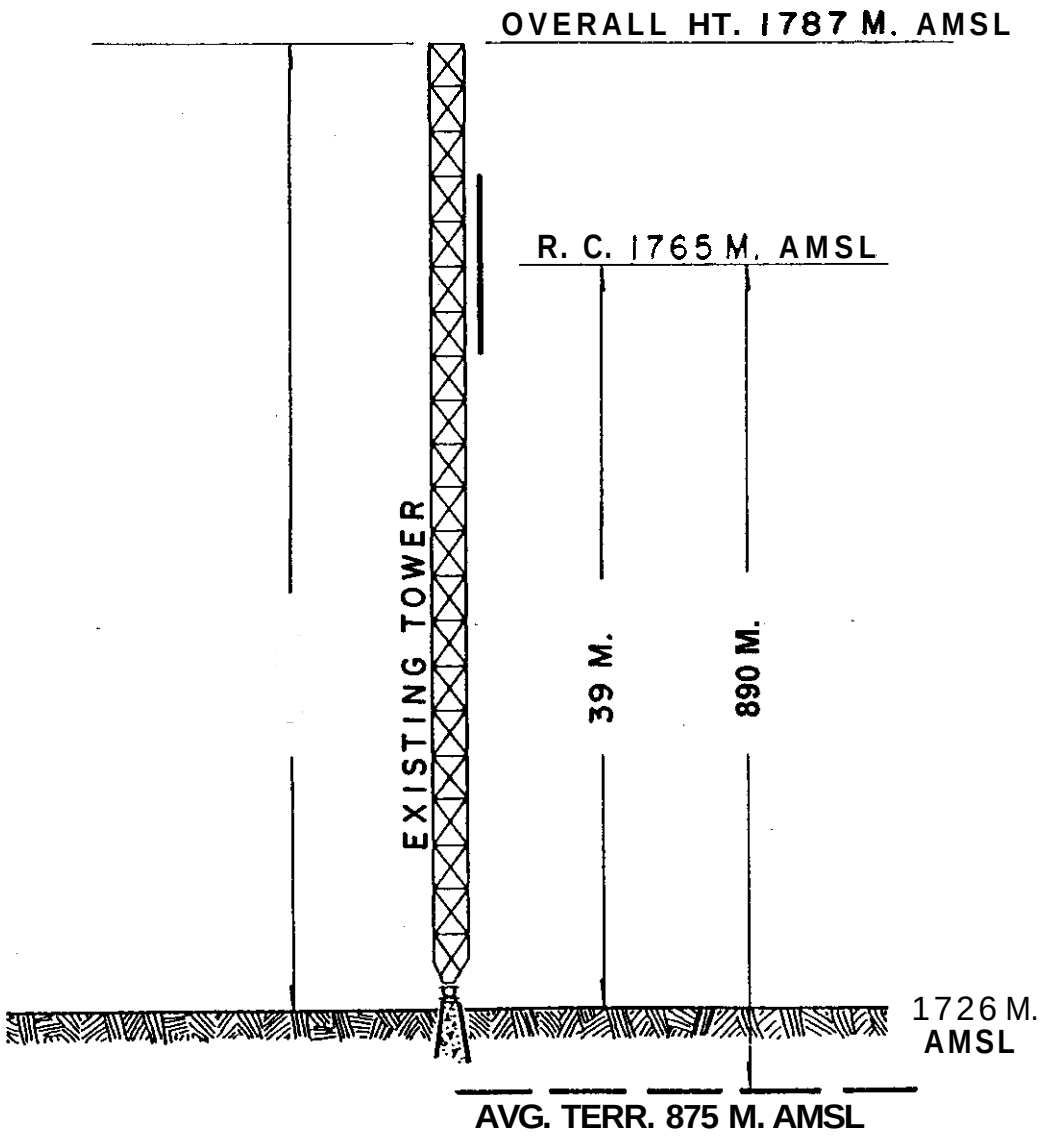
EXHIBIT B

LOCATION OF PROPOSED SITE

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

NOT TO SCALE



SITE COORD

34° 13' 27"

118° 03' 44"

EXHIBIT C

ELEVATION OF ANTENNA STRUCTURE

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

EXHIBIT D-1

PROPOSED OPERATING PARAMETERS

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

Channel Number:	45
Zone:	2
Site Coordinates:	34-13-27N 118-03-44W
Antenna Structure Registration Number:	None required
Tower Site Elevation (AMSL):	1726 meters
Overall Tower Height Above Ground:	61 meters
Overall Tower Height Above (AMSL):	1787 meters
Effective Antenna Height Above Ground:	39 meters
Effective Antenna Height (AMSL):	1765 meters
Average Terrain Elevation (2-10 miles):	875 meters
Effective Antenna Height Above Average Terrain:	890 meters
Antenna Make and Model:	Andrew ATW22HS4-HSC4-45S
Orientation:	Directional at 270° T
Electrical Beam Tilt:	1.0°
Polarization:	Horizontal
Effective Radiated Power (main-lobe, maximum):	1000 kw

EXHIBIT D-2

PROPOSED OPERATING PARAMETERS

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTAANA, CALIFORNIA

Transmitter power output	20 kw
Transmission line loss	**2.1 kw**
Input to antenna	17.9 kw
Antenna gain (maximum)	**55.88**
Effective radiated power (maximum)	1000 kw

Transmitter make and model:	Type-accepted
Rated Power:	**20 kw**
Transmission line	
Make and model:	Andrew HJ9HP-50
Size:	5"
Type:	Air Heliax (High Power)
Length:	**200** feet
Antenna	
Make and model:	Andrew ATL22HS4-HSC4-45S
Type:	Directional @ 270° T
RCAGL	**128** feet

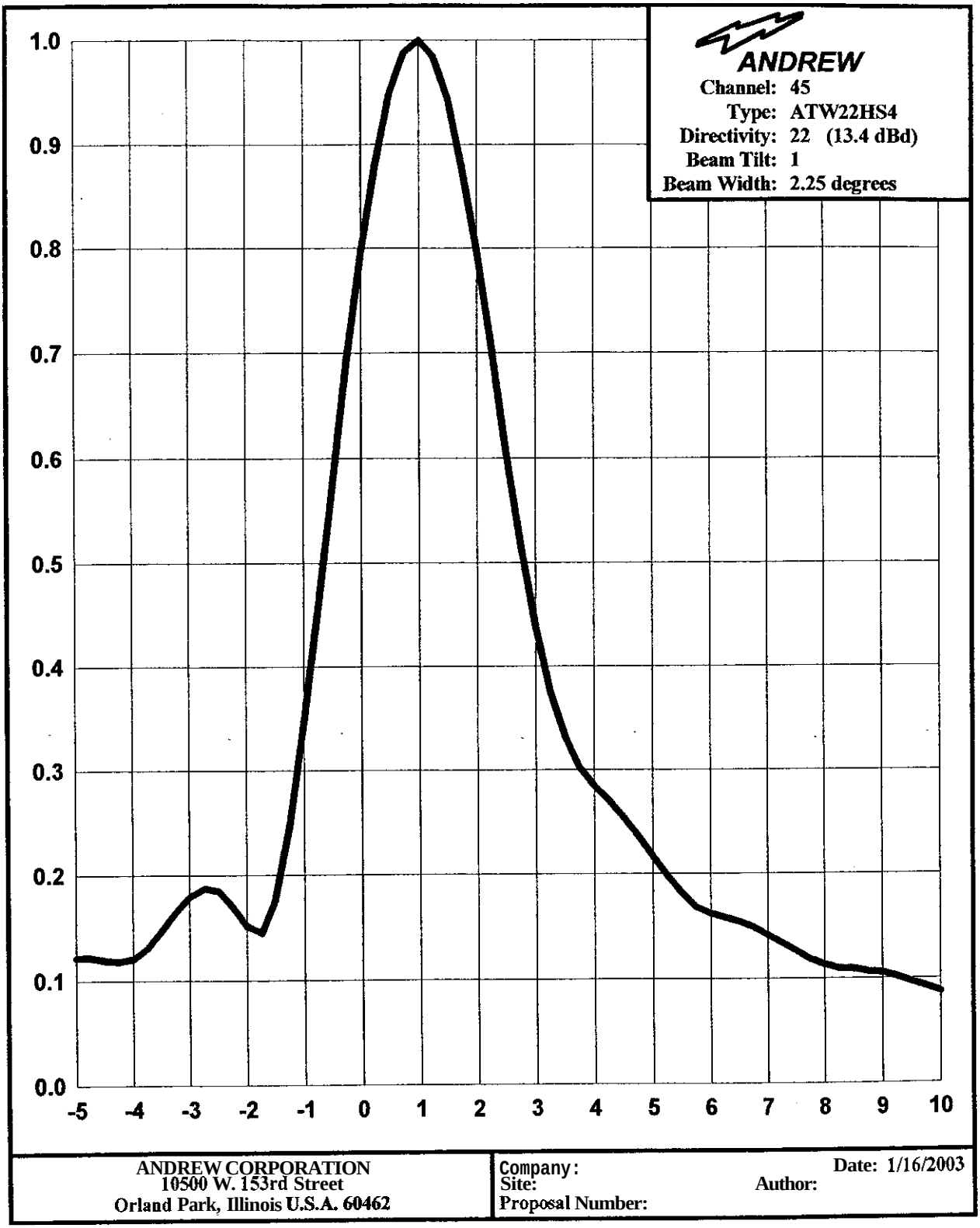


EXHIBIT E-1

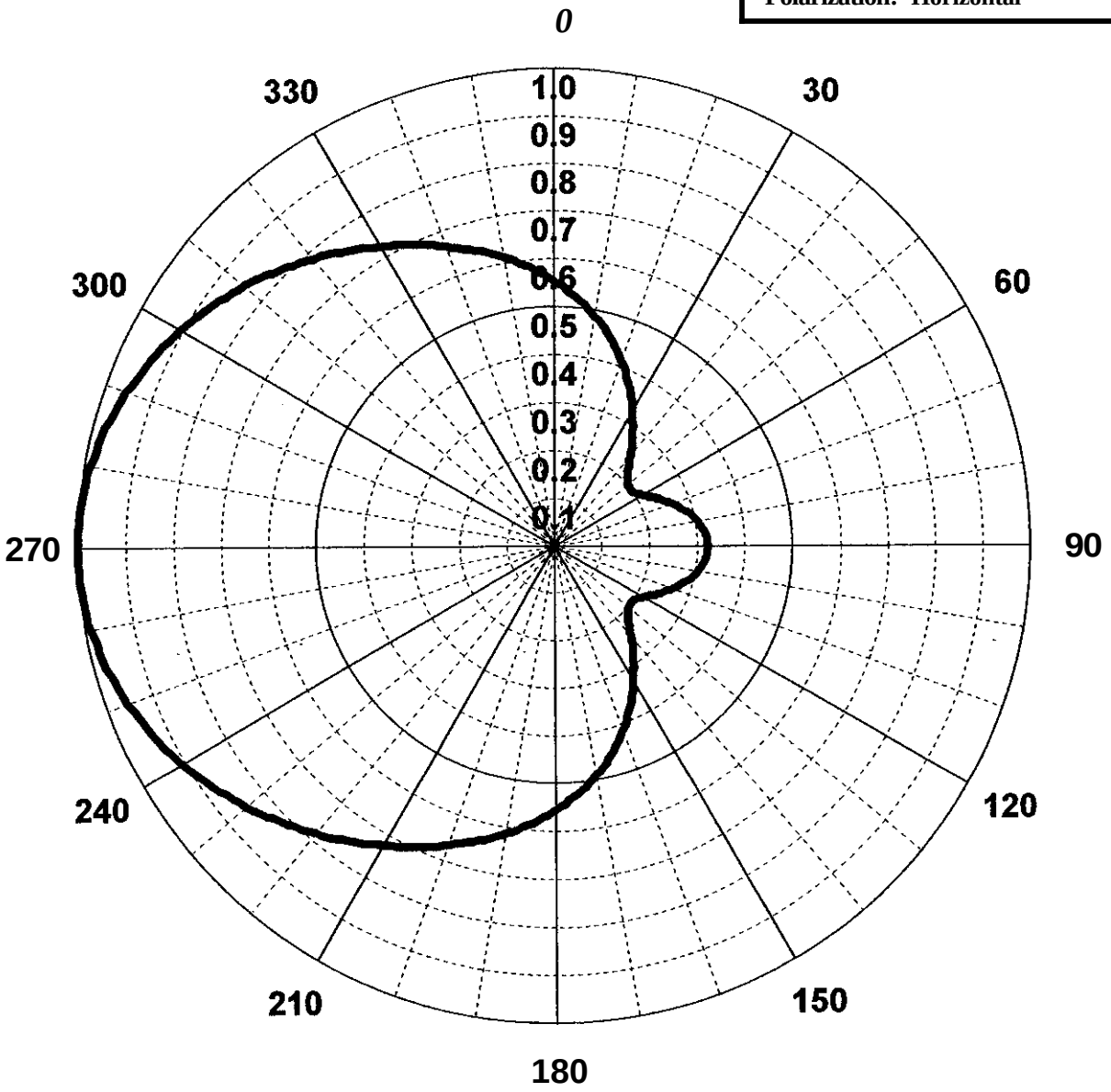
ANTENNA ELEVATION PATTERN

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

ANDREW

Channel: 45
Type: ATW-C4
Gain: 2.54 (4.05 dB)
Polarization: Horizontal



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:
Author:
Date: 1/16/2003

EXHIBIT E-3

ANTENNA RADIATION VALUES

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

Azimuth (° T)	Relative Field	ERP (dbk)	Azimuth (° T)	Relative Field	ERP
0	0.55	24.8	180	0.55	24.8
10	0.49	23.8	190	0.61	25.7
20	0.41	22.3	200	0.67	26.5
30	0.33	20.4	210	0.72	27.1
40	0.25	18.0	220	0.78	27.8
50	0.20	16.0	230	0.85	28.6
60	0.21	16.4	240	0.91	29.2
70	0.26	18.3	250	0.96	29.6
80	0.31	19.8	260	0.99	29.9
90	0.32	20.1	270	1.00	30.0
100	0.31	19.8	280	0.99	29.9
110	0.26	18.3	290	0.96	29.6
120	0.21	16.4	300	0.91	29.2
130	0.20	16.0	310	0.85	28.6
140	0.25	18.0	320	0.78	27.8
150	0.33	20.4	330	0.72	27.1
160	0.41	22.3	340	0.67	26.5
170	0.49	23.8	350	0.61	25.7

EXHIBIT F

ELEVATION AND CONTOUR DATA

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

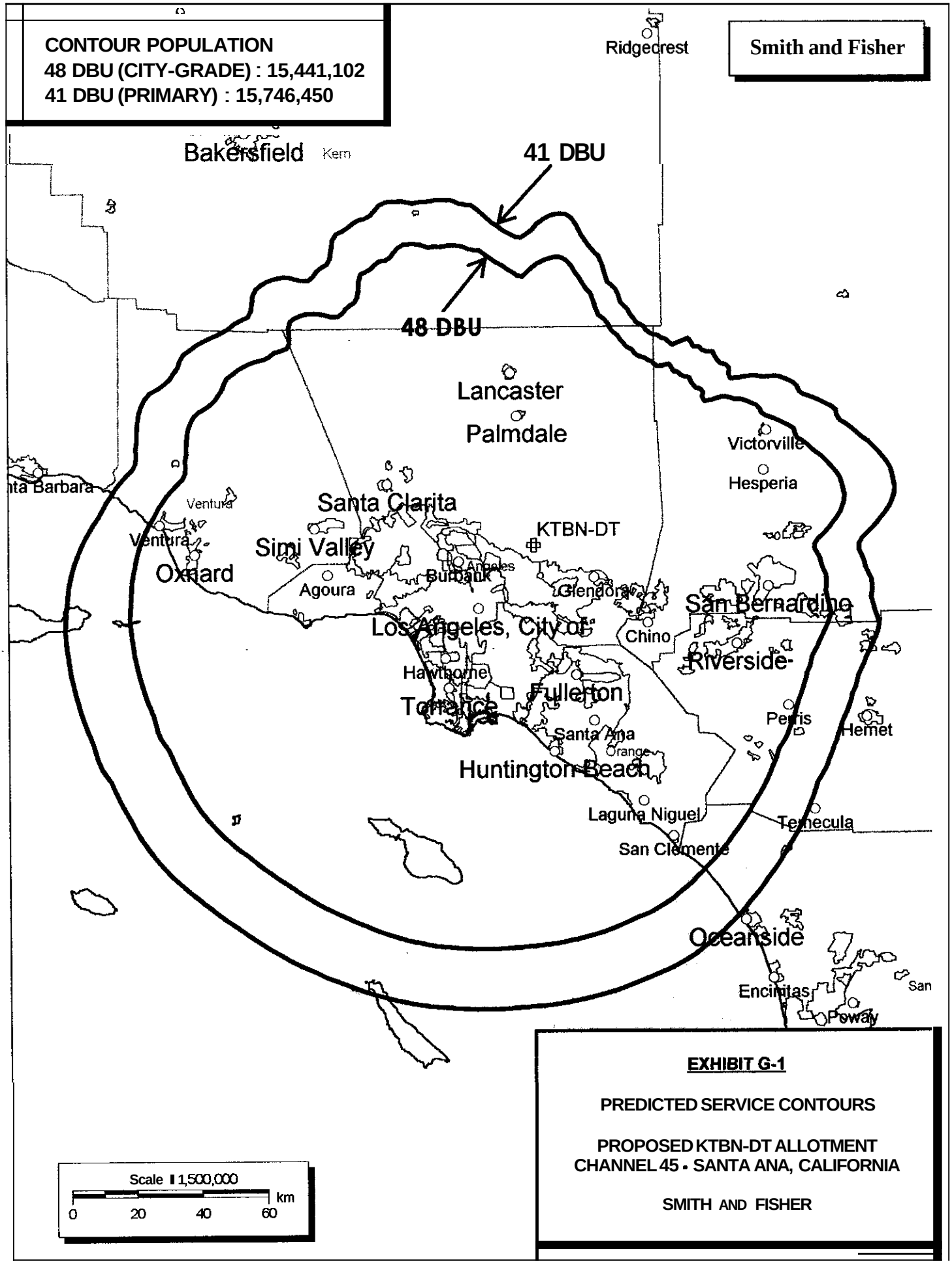
Az. (° T)	Avg. Elv. AMSL 2 to 10 Miles meters	Effective Ant. Ht. AAT meters	ERP (dbk)	Distance to Predicted Digital Contour 48 dbu (km)	41 dbu (km)
0	1360	405	24.8	84	96
45	1408	357	17.0	69	79
90	1189	576	20.1	86	99
135	396	1369	17.0	100	116
180	288	1477	24.8	121	140
225	345	1420	28.2	129	148
270	794	971	30.0	119	137
315	1224	541	28.2	99	113
163*	263	1502	22.8	117	135

*Radial through *Santa* Ana; *not* included in average.

Height of radiation center above mean sea level	1765 meters
Height of average terrain above mean sea level	875 meters
Height of radiation center above average terrain	890 meters
Effective radiated power, main lobe, maximum	30.0 dbk, 1000 kw

Geographic Coordinates

N 34° 13' 27" W 118° 03' 44"


CONTOUR POPULATION
48 DBU (CITY-GRADE) : 15,441,102
41 DBU (PRIMARY) : 15,746,450
Smith and Fisher
Ridgecrest
Bakersfield
Kern
41 DBU
48 DBU
Lancaster
Palmdale
Victorville
Hesperia
Santa Barbara
Ventura
Santa Clarita
KTBN-DT
Simi Valley
Oxnard
Agoura
Burbank
Glendora
San Bernardino
Los Angeles, City of
Chino
Riverside
Hawthorne
Fullerton
Torrance
Perris
Hemet
Santa Ana
Orange
Huntington Beach
Laguna Niguel
Temecula
San Clemente
Oceanside
Encinitas
San
Poway
Scale 1:1,500,000
km
0
20
40
60
EXHIBIT G-1
PREDICTED SERVICE CONTOURS
PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 • SANTA ANA, CALIFORNIA
SMITH AND FISHER

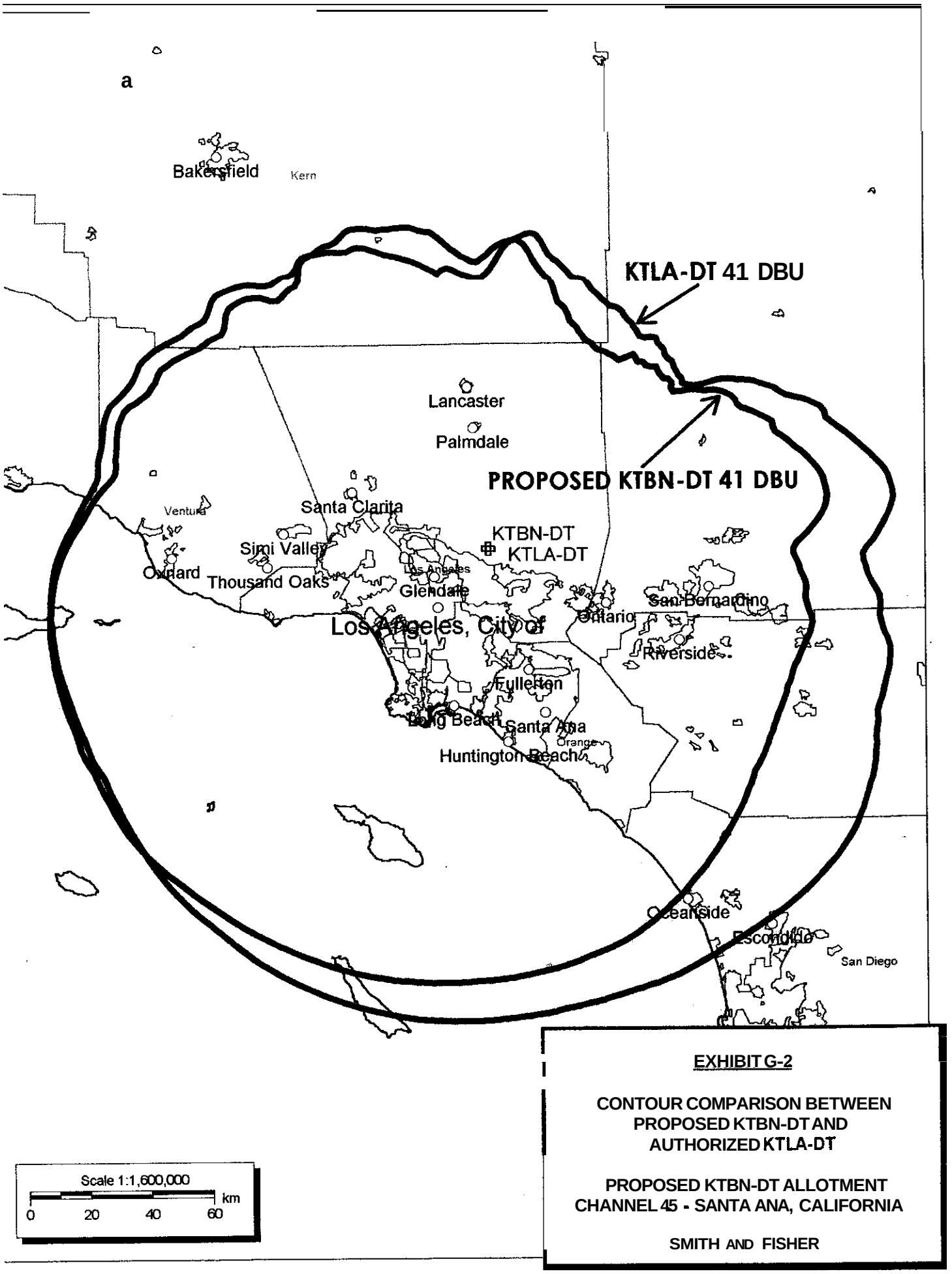


EXHIBIT G-2

CONTOUR COMPARISON BETWEEN PROPOSED KTBN-DT AND AUTHORIZED KTLA-DT

PROPOSED KTBN-DT ALLOTMENT CHANNEL 45 - SANTA ANA, CALIFORNIA

SMITH AND FISHER

EXHIBIT H-1

INTERFERENCE STUDY

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 – SANTA ANA, CALIFORNIA

An interference study was conducted using the operating parameters of the facility described herein to determine if it meets the FCC's de *minimis* interference requirements of Section 73.623(c)(2) of the Commission's Rules. Specifically, the proposed facility may not cause more than two percent interference to the service population of a DTV or NTSC facility. nor can its interference contribution result in an excess of 10 percent total DTV interference to the service population of any DTV or NTSC facility.

The service area of a DTV station is defined as that which is calculated using the Longley-Rice propagation model to receive a signal of 41 dbp or greater and lies within the predicted 41 dbp contour of the station using the F(50,90) curves, the station's effective radiated power, and 2-10 mile terrain averages along each radial.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe II" computer program, which has been found generally to mimic the FCC's program. Changes in interference caused by the proposed allotment facility to other pertinent stations are tabulated in Exhibit H-2.

As indicated, the proposed allotment would not contribute more than two percent DTV interference to the service population of any potentially affected NTSC or DTV station. In addition, this proposal does not result in any NTSC or DTV station receiving more than ten percent total DTV interference to viewers living within the station's authorized or proposed service area.

EXHIBIT H-1

Therefore, this proposal meets the FCC's *de minimis* interference standards as defined in Section 73.623(c)(3) of the Commission's Rules.

It is also important to note that, using the same Longley-Rice methodology described above, we have determined that the proposed D N allotment facility does not cause interference to any authorized Class A LPTV station.

EXHIBIT H-2

DE MINIMIS INTERFERENCE ANALYSIS

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 – SANTA ANA, CALIFORNIA

NTSC FACILITIES
INTERFERENCE LOSSES (POPULATION).

Call Sian	Citv. State	Ch.	Grade B Population F(50,50)	NTSC Only	NTSC & DTV Without KTBN-DT	Unmasked DTV	%[1]	NTSC & DTV With KTBN-DT	Unmasked DTV	%[1]	KTBN-DT Contribution	%[2]
KPXN	San Bernardino, CA	30	15,111,778	382,760	1,180,845	798,085	5.3	1,180,845	798,085	5.3	0	0
KPXN(Appl.)	San Bernardino, CA	30	15,421,591	137,510	780,790	643,280	4.2	780,790	643,280	4.2	0	0
KXLA	Rancho Palos V., CA	44	8,939,558	1,377,109	1,579,319	202,210	2.3	1,642,816	265,707	3.0	63,497	0.7
KUVI	Bakersfield, CA	45	745,898	54,686	54,894	208	<0.1	54,899	213	<0.1	5	<0.1
KFTR	Ontario, CA	46	15,131,752	69,177	129,230	60,053	0.4	147,078	77,901	0.5	17,848	0.1
KFTR(Appl.)	Ontario, CA	46	15,491,314	40,763	107,676	66,913	0.4	109,229	68,466	0.4	1,553	<0.1
KHTV-LP	Inland Empire, CA	48	7,395,177*	-		-	-	-	-	-	0	0

DTV FACILITIES
INTERFERENCE LOSSES (POPULATION).

Call Sign	City, State	Ch.	NTSC/DTV[3] Grade B Pop. Lonalev-Rice	NTSC Onlv	NTSC & DTV Without KTBN-DT	Unmasked DTV	%[1]	NTSC & DTV With KTBN-DT	Unmasked DTV	%[1]	KTBN-DT Contribution	%[2]
KHIZ-DT (Appl.)	Barstow, CA	44	1,508,550	1,301	1,953	652	<0.1	1,953	652	<0.1	0	0
**KESQ-DT (PRM)	Palm Springs, CA	44	2,418,735	247,211	417,609	170,398	7.0	417,840	170,629	7.0	231	<0.1

'74 dBu service population
**1 km cell size/0.1 km increment spacing used

1 Cannot exceed 10% of Grade B Population.
2 Cannot exceed 2% of Grade Population.
3 Larger of either NTSC Grade B population (with no DTV losses) or DTV Grade B population with all losses.

EXHIBIT I

POWER DENSITY CALCULATION

PROPOSED KTBN-DT ALLOTMENT
CHANNEL 45 - SANTA ANA, CALIFORNIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Santa Ana facility. Employing the methods set forth in *OET Bulletin* No. 65 and considering a main-lobe effective radiated power of 1000 kw. an effective antenna height of **39** meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of 0.035 mw/cm^2 is calculated to occur 10 meters west of the base of the tower. This is only 8.0 percent of the 0.44 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 45 (656-662 MHz).

The owner of KTBN-TV is a member of the Mount Wilson broadcasters consortium. A major focus of this group is to ensure that the public and occupational areas on Mount Wilson meet the FCCs RF exposure guidelines. As a result, the group commissions power density surveys by qualified personnel in order to maintain proper RF levels in the area. Accordingly, when KTBN-DT becomes operational, the licensee will conduct studies necessary to determine that the FCC's RF exposure guidelines are met. Therefore, a grant of this proposal may be considered a minor environmental action with respect to public exposure to nonionizing electromagnetic radiation.

EXHIBIT I

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.